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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,185	11/20/2003	Katsumi Okamoto	Q78558	5971

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Washington, DC 20037-3213

EXAMINER

GLEITZ, RYAN M

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,185

Applicant(s)

OKAMOTO, KATSUMI

Examiner

Ryan Gleitz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 and 27-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/2/05; 11/20/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 27 and 36-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 17 November 2005.

Claims 17-22, 28-35, and 40-75 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 25 August 2005.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the deflection amount of the developer carrier at an end portion of the developer carrier in a longitudinal direction thereof is smaller than a deflection amount at a center of the developer carrier, claims 16 and 23-26, must be shown or the feature(s) canceled from the claim(s). Note that figures 5-7 may show a deflection amount at the end *larger* than the deflection at the center. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

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be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The form and legal phraseology often used in patent claims, such as "comprises", "means" and "said," should be avoided in the abstract. See line 2.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Noda et al. (US 5,510,878).

Noda et al. disclose a developer carrier (12d) for carrying a developer, for example figure 29, the developer carrier including an opposing region that opposes a latent image-carryable

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region on an image carrier (9). Sleeve gear (12k) also includes a flange portion, col. 20, line 61, which reads on a solid portion fitted into an end portion of a hollow roller in the longitudinal direction in a longitudinal direction thereof; wherein an end of the solid portion, which is on a side of a center of the developer carrier (12d) in the longitudinal direction, is located closer to the center of the developer carrier (12d) than an edge of the opposing region.

Regarding claims 3 and 11, the developer carrier is formed of metal as shown by the cross-hatching in figure 29, which means it must be manufactured by conducting at least one of cutting and polishing.

Regarding claims 7, 8 and 10, an abutment member, developing blade (12e), abuts against the developer carrier (12d) along the longitudinal direction of the developer carrier, wherein the developer carrier (12d) is supported at both ends in the longitudinal direction thereof so that the developer carrier (12d) is abutted with the abutment member (12e) along the longitudinal direction of the developer carrier (12d), and figure 28 shows that the abutment member (12e) presses the developer carrier (12d) towards the image carrier (9). The abutment member also regulates the thickness of the developer. See col. 6, lines 4-5.

Regarding claim 9, alternatively, elastic roller (12g) also reads on an abutment member, and is a developer supply member for supplying the developer to the developer carrier (12d).

Regarding claim 12, figure 29 also shows that the developer carrier (12d) and the image carrier (9) are not in contact with each other.

Regarding claim 15, the developing device is located in an image forming device, and the image forming device may be a laser printer. See col. 1, line 19. Laser printers must be

connected to a computer in order to print. All computers read on a computer mainframe and must contain a display device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al. (US 5,510,878) in view of Kurokawa et al. (JP 06-308816).

Noda et al. disclose the developing device above but do not disclose that the deflection amount of an end portion of the developer carrier is smaller than that of the center.

However, Kurokawa et al. disclose a developing gap between a developing roller (16) and photosensitive drum (30), wherein the gap in the center is larger than the gap at the ends. Abstract, lines 4-6.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the developing device of Noda et al. with the gap taught by Kurokawa et al. to make develop leaks constant over the entire length and to maintain constant charging along the entire length of the nip. See abstract, lines 1-3 and 7-10.

Contact Information

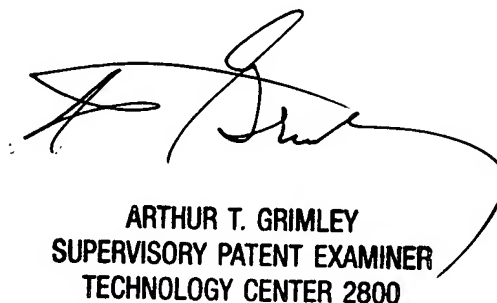
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


rg


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